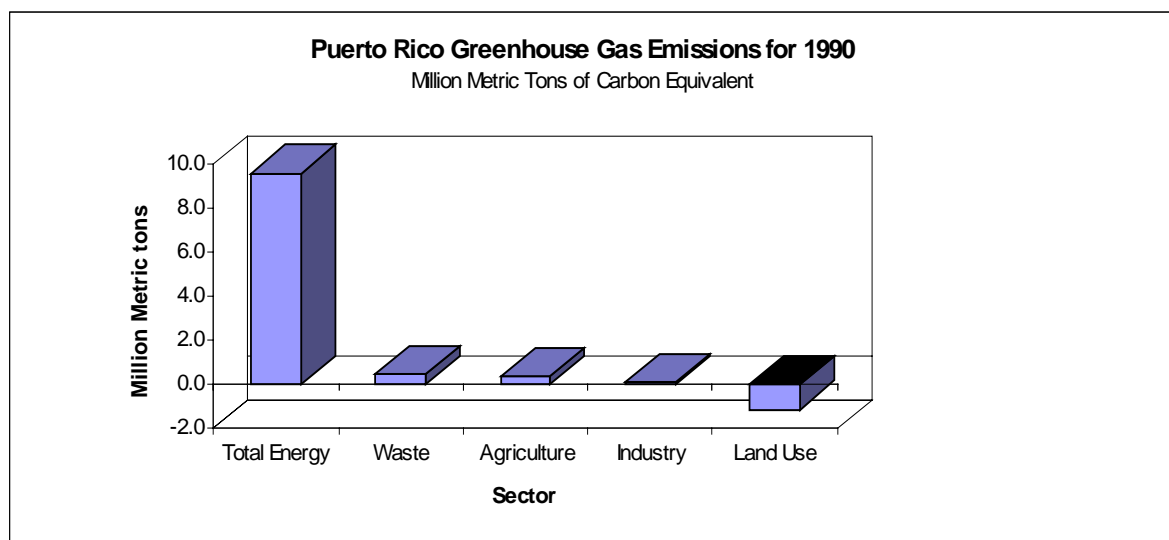


## PUERTO RICO GREENHOUSE GAS EMISSIONS AND SINKS INVENTORY: SUMMARY



This report provides a detailed inventory of greenhouse gas emissions and sinks for Puerto Rico in 1990. Emissions were estimated using methods from EPA's 1995 guidance document ***State Workbook: Methodologies for Estimating Greenhouse Gas Emissions***. In 1990, Puerto Rico emitted 9.3 million metric tons of carbon equivalent (MMTCE). Puerto Rico estimated emissions of 0.005 MMTCE from sources not included in the workbook.<sup>1</sup> Emissions from these sources are not included in the reported total or the table below.

The principal greenhouse gas was carbon dioxide, comprising 31.3 million metric tons. Other emissions included methane, with 0.14 million metric tons (0.8 MMTCE) and 35.4 metric tons of nitrous oxide (0.003 MMTCE).

The major source of carbon dioxide emissions was fossil fuel combustion (99%) with minor emissions from cement production, lime manufacture, soda ash manufacture and consumption, and carbon dioxide manufacture. Carbon dioxide sinks (timber stock and other forest resources) offset about 11% of the total carbon dioxide emissions. Contributors to methane emissions were landfills (54%), domesticated animals (23%), manure management (21%), natural gas production (1%), and municipal wastewater (0.6%). Nitrous oxide emissions were attributable to fertilizer use.

Puerto Rico emissions in 1990 were 2.6 MTCE per capita, compared to 1990 U.S. emissions of 6.4 MTCE per capita.

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<sup>1</sup> These emissions include non-carbon dioxide emissions from mobile sources and stationary combustion. Puerto Rico's inventory also gives VOC's, NOx, and CO emissions. As no Global Warming Potentials (GWP's) have currently been estimated for these gases, this figure underestimates the emissions of the additional sources.

### Puerto Rico Greenhouse Gas Emissions for 1990

BY SECTOR	CO <sub>2</sub> (MMTCE)	Methane (MMTCE)	Nitrous Oxide (MMTCE)	PFCs (MMTCE)	Total GHG Emissions (MMTCE)
Energy - Residential	*	*	*	*	*
Energy - Commercial	0.1	*	*	*	0.1
Energy - Industrial	5.8	*	*	*	5.8
Energy - Transport	*	*	*	*	*
Energy - Utility	3.7	*	*	*	3.7
<b>Total Energy</b>	<b>9.6</b>	<b>0.01</b>	*	*	<b>9.6</b>
<b>Waste</b>	*	<b>0.4</b>	*	*	<b>0.4</b>
<b>Agriculture</b>	*	<b>0.4</b>	<b>0.003</b>	*	<b>0.4</b>
<b>Industry</b>	<b>0.1</b>	*	*	*	<b>0.1</b>
<b>Land Use</b>	<b>-1.1</b>	*	*	*	<b>-1.1</b>
<b>Total</b>	<b>8.5</b>	<b>0.8</b>	<b>0.003</b>	*	<b>9.3</b>

All emissions are reported in million metric tons of carbon equivalent (MMTCE).

An asterisk ( \* ) indicates that emissions of the gas from this sector were zero, insignificant, or not reported.

Emissions due to the extraction of natural gas and oil are included in the total energy figures, and emissions from biofuel combustion are excluded.